

ABSTRACT OF THE DISCLOSURE

A REPRESENTATIONAL APPROACH TO DNA ANALYSIS

Methodology is provided for developing probes for identifying sequence differences between two related DNA populations, sets of DNA fragments or collections of restriction-endonuclease-cleaved DNA or cDNA. The method employs an initial stage to obtain a representation of both DNA populations, namely using the PCR to produce relatively short fragments, referred to as amplicons. Tester amplicons containing target DNA, sequences of interest, are ligated to adaptors and mixed with excess driver amplicons under melting and annealing conditions, followed by PCR amplification. The process may be repeated so as to greatly enrich the target DNA. Optionally, the target DNA may then be cloned and the DNA used as probes.